

FAST CHANNEL SCANNING AND ACQUISITION SYSTEM AND METHOD FOR CABLE MODEM APPLICATIONS

Abstract

[45] A programmable channel scanning and acquisition method for a cable modem
5 first performs a fast scan and then a slow scan to identify channels supporting cable
modem services. The fast scan involves only a check of the cable modem AGC lock. A
list of potentially operational channels is assembled and scanned. The list includes, in
order of preference, the last known good channel, golden channels that are likely to
support cable modem services, “learned” golden channels consisting of previous last
10 known good channels, and other channels within the frequency plan range. The list omits
channels on a “black list” known not to be operational and channels outside of the
frequency range, except during registration. The method may be optimized by the setting
of various parameters for operation in a DOCSIS or EuroDOCSIS environment.